

Serial No.: 09/869,984
Reply to Office Action of: 12/17/2004
Atty. Docket No.: GJH-0005 (P1997J057K)

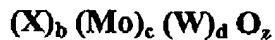
LISTING OF CLAIMS

1. (Currently amended) A process for hydroprocessing a petroleum feedstock, which feedstock contains both nitrogen and sulfur, which process comprises contacting a feedstock with a bulk multimetallic catalyst comprised of at least one Group VIII non-noble metal and at least one Group VIB metals and wherein the ratio of Group VIB metal to Group VIII non-noble metal is from about 10:1 to about 1:10, which process is performed at temperatures from about 500°F to about 800°F, pressures from about 100 to about 1000 psig, gas rates from about 500 to about 10,000 standard cubic feet per barrel, and feed rates from about 0.1 to about 100 liquid hourly space velocity.

2. (Original) The process of claim 1 wherein the Group VIII non-noble metal is selected from Ni and Co and the Group VIB metals are selected from Mo and W.

3. (Original) The process of claim 1 wherein two Group VIB metals are present as Mo and W and the ratio of Mo to W is about 9:1 to about 1:9.

4. (Currently amended) The process of claim 1 wherein the bulk multimetallic is represented by the formula:



wherein X is a Group VIII non-noble metal, and the molar ratio of b:(c+d) is 0.5/1 to 3/1, and z = [2b + 6(c+d)]/2.

5. (Currently amended) The process of claim 3 4 wherein the molar ratio of b:(c+d) is 0.75/1 to 1.5/1.

6. (Currently amended) The process of claim 3 4 wherein the molar ratio of c:d is >0.01/1.

Serial No.: 09/869,984
Reply to Office Action of: 12/17/2004
Atty. Docket No.: GJH-0005 (P1997J057K)

7. (Original) The process of claim 1 wherein the bulk multimetallic catalyst is essentially an amorphous material having a unique X-ray diffraction pattern showing crystalline peaks at $d = 2.53$ Angstroms and $d = 1.70$ Angstroms.

8. (Original) The process of claim 1 wherein the feedstock is comprised of at least 50 wt.% of distillate product from an atmospheric distillation process.

9. (New) The process of claim 1 wherein the temperature is from about 575°F to about 700°F.

10. (New) The process of claim 1 wherein the pressure is from about 200 to about 800 psig.

11. (New) The process of claim 10 wherein the pressure is from about 300 to about 500 psig.

12. (New) The process of claim 1 wherein the gas rate is from about 750 to about 5,000 standard cubic feet per barrel.

13. (New) The process of claim 1 wherein the feed rate is from about 0.3 to about 5.0 liquid hourly space velocity.